decoding the video signal received from bus **500**. LED board **130'** routes signal and power via wiring path segment **501**C to the LED connectors **150**, which is then connected to LED board **130** via segment **501***d*. Each wiring path is intended to carry power and signals to the plurality of LED's. The LED boards **130** each have additional signal routing means via attached integrated circuits **134**. A wiring path as described above can include pair of parallel conductive traces or wires were the power and signals are separate, or a single line in which the signals are multiplexed on the power supply.

[0121] Preferably both the display **100** and the connected components are water proof for use in adverse weather, using conventional weather proofing means, such as gaskets at connects and sealing or conformal coating on all wiring boards, overmolding, encapsulation, such as with Macromelt® and the like.

[0122] In the more preferred embodiment shown in FIGS. **25**A and **25**B, the bus **500** is connected to power and signal controller **140**, and hence power distribution board **160** via hinge **120**. Hinge **120** has a multi-pin connector **145** that is disposed in a gap in hinge plate and extends from the hinge plate **121** to connect to the LED board **130** at the mating plug on side **130***b*, FIG. **25**B. The opposite side of the hinge **120** from connector **145** has either wiring terminals or another plug or socket to connect with the bus **500** wiring. connectors. Thus, as LED board **130** is connected to bus **500**, circuit path **501***d* on this LED board **130** connects to the power and signal controller **140**, as in the embodiment shown in FIG. **16-18** provides power and signals to the other LED boards **130'** and 130". It should be appreciated that when the hinge **120** is used to connect the bus **500** to the blade assembly components, the active components, such as power distribution board **160** can be disposed in different locations on the blade **110**, as well as combined with the hinge, and need not be limited to the preferred embodiments described herein.

[0123] In more preferred embodiments there is a protective cover **115** over each horizontal rigid member. As shown in FIG. **26**, a protective cover **115** is disposed over the LED board **130**. The protective cover is optionally transparent, and the front **1** of the LED board **130** around each of the LED's has a non-reflective black color. Alternatively, the protective cover **115** can be black and opaque, but have holes **117** cut out for each of the LED's **131** as shown in FIG. **27**. The cone of light emitted by each LED **131** is represented by the arrows and arc **1602**. The holes **117** have a sufficient diameter, based spacing from the LED's **131** to avoid shadowing the LED emission. While in this embodiment the cover is separate from the leaf board **131**, it is more preferred that the cover is molded directly onto the leaf board.

[0124] More preferably either embodiment of the protective cover **115** also includes a means for thermal control to minimize solar heating of the outdoor display. In FIG. **27**, thermal radiation, such as from the afternoon sun is represented by parallel rays **1601**, and would ordinary heat the display **100** via IR radiation, as well as reflect visible light back to viewers. One embodiment of a thermal control means **116** is illustrated in as a multi-layer thin film coating, referred to as a hot mirror, is capable of reflecting infra-red radiation from the sun, but is transparent and transmits visible light so that it is absorbed by the black colored portion **132** of the LED board **130** around the LEDs **131**. The coating or black non-reflective portion preferably absorbs visible light so the rays **1602** are not reflected to viewers off the cover **115**. Reflection of visible light to the viewers would otherwise minimize display contrast or require higher LED brightness in some viewing conditions. Such a coating may additionally block UV light to protect the underlying materials that form the display.

[0125] The substrate for the protective cover that support the thermal control means is optionally fully clear transparent or optionally somewhat translucent to diffuse the light.

[0126] Such thermal control multi-layer coatings are described in U.S. Pat. No. 6,391,400, which issued to Russell et al. on May 21, 2002, as well as U.S. Pat. No. 5,306,547, which issued to Hood on Apr. 26, 1994, both of which are incorporated herein by reference.

[0127] In another preferred embodiment, shown as an electrical schematic in FIG. **28**, the first set of vertically arrayed hinges **120** provides the wiring connections for a primary bus circuit **500**, which receives signal and power from a video source **1000**, via a switching circuit **1700**. A second set of vertically arrayed hinges **120'**, comprising the adjacent hinges **120'** on the vertical arrays of blades, provides a secondary or back up bus circuit **500'**, should the bus circuit **500'** prove defective or fail. Once this failure is determined from circuit integrity testing the communication and operation of the display **100** can be switched to this back up bus circuit **500'** via a switching circuit **1705**, that then directs power via circuit segment **1701**. In this case, the same power and signal can be routed either way on segment **1702**, such that segments **1701** and **1702**, together with the primary and secondary bus circuits **500** and **500'** respectively form a circuit integrity loop **1700**.

[0128] It should be appreciates that as the display **100** is intended for outdoor use, it is most preferable that all electrical connections and components are water proof, such as for example by gasket at each plug and socket connection, as well as by the sealing of printed circuit boards in the LED board **130** and the power and signal module/controller **140** via conformal coatings and related means known in the art.

[0129] It should be appreciated that the hinges **120** and hinge shackles **122**, **123** can have different configurations than those shown and still achieve the same functions of connecting adjacent blades **110** and permitting at least a limited amount of rotation at adjacent sides to enable the rolling and unrolling thereof for storage and use respectively. Such options include, without limitation a traditional "lift-off" hinge where the two halves of" the hinge slide apart in the axis of the hinge pin. Once assembled, the "lift off portions" can be further coupled to preclude sliding out during employment during deployment, as for example by permanent fixation or via a removable member. Alternatively, the hinge (or at least a part thereof) could be integrally formed with a molded or extruded member that forms the blade, rather than a separate discrete component.

[0130] Further, it should be appreciated that more than 3 or 4 LED's can be used to create pixel, depending on the LED luminance, color purity and the sensitivity of the human eye. Moreover, the LED's **131** can be arranged in other patterns than a square grid. Thus, neither the number of pixels per LED board **130** or per pixel **32** need be limited to what is shown in the FIG's.

[0131] FIG. **29** illustrates a more preferred aspect of the invention wherein the rolled display is disposed within an elongated truss support **2901** and deployable therefrom. Such a truss or support frame **2901** will have 3 or 4 elongated main post **2902** shown as extending horizontally that are connected at the ends series of shorter posts **2903** that form a closed